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IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his)
capacity as ATTORNEY GENERAL)
OF THE STATE OF OKLAHOMA and)
OKLAHOMA SECRETARY OF THE)
ENVIRONMENT C. MILES TOLBERT,))
in his capacity as the)
TRUSTEE FOR NATURAL RESOURCES))
FOR THE STATE OF OKLAHOMA,)
)
Plaintiff,)
)
vs.) 4:05-CV-00329-TCK-SAJ
)
TYSON FOODS, INC., et al,)
)
Defendants.)

- - - - -
THE VIDEOTAPED DEPOSITION OF
VALERIE HARDWOOD, PhD, produced as a witness on
behalf of the Defendants in the above styled and
numbered cause, taken on the 18th day of July, 2008,
in the City of Tulsa, County of Tulsa, State of
Oklahoma, before me, Lisa A. Steinmeyer, a Certified
Shorthand Reporter, duly certified under and by
virtue of the laws of the State of Oklahoma.

1 Foods.

2 VIDEOGRAPHER: Thank you. The witness may
3 be sworn in.

4 VALERIE HARWOOD
5 having first been duly sworn to testify the truth,
6 the whole truth and nothing but the truth, testified
7 as follows:

8 DIRECT EXAMINATION

9 BY MR. TODD:

10 Q Good morning, Professor Harwood. How are you? 09:06AM

11 A Fine, thanks.

12 Q Good. Now, this is the third time you've
13 given testimony in this case. You've been deposed
14 previously and you testified at the preliminary
15 injunction hearing. That's right? 09:06AM

16 A That's correct.

17 Q Okay. Just quickly, the same ground rules as
18 we used before. I will attempt to ask clear
19 questions and if you don't understand my question,
20 please let me know so that you're answering the 09:07AM
21 question that I'm asking. Okay?

22 A Okay.

23 Q And remember to give verbal answers so they
24 can be recorded. And I will attempt to use
25 technical terms correctly, but you obviously are 09:07AM

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1 **A** Of course, I've done some additional data
2 analysis for the report.

3 **Q** Right, and you submitted a report?

4 **A** Correct.

5 **Q** We talked at your last deposition -- you 09:09AM
6 talked at your last deposition a bit about fate and
7 transport, and let me just run through some
8 characteristics here, and I hope we can take care of
9 these pretty quickly. Since your prior deposition,
10 have you conducted any study of the fate and 09:09AM
11 transport characteristics of any bacterium in the
12 Illinois River watershed?

13 **A** No, I have not.

14 **Q** So you have not studied how bacteria is
15 affected by temperature? 09:09AM

16 **A** No.

17 **Q** Desiccation?

18 **A** No.

19 **Q** Predation?

20 **A** No. 09:09AM

21 **Q** Osmotic pressure?

22 **A** No.

23 **Q** UV exposure?

24 **A** No.

25 **Q** pH balance? 09:09AM

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1 being soil samples from a Peterson contract grower's
2 farm?

3 A No, I can't.

4 Q Can you identify the soil samples listed on
5 Exhibit 12 as being from any contract grower for any 02:34PM
6 of the defendants in this case?

7 A I don't have any knowledge of which samples
8 correspond to which of the growers.

9 Q What about with regards to the litter; can you
10 identify which of the samples go with which specific 02:34PM
11 defendant contract grower?

12 A Not off the top of my head, although that data
13 is available, but I can't do it right here.

14 Q With regard to the edge of field samples, the
15 EOF and the EOF SPREAD samples, could you identify 02:35PM
16 which properties and which property owners those
17 samples were taken adjacent to?

18 A Do you mean could I do that right now?

19 Q Well, do you know?

20 A No. Do I -- 02:35PM

21 Q Do you have that information within your
22 files?

23 A I believe I have it in my files, but I know I
24 could obtain it from CDM if I needed to get it.

25 Q With regard to your findings of the biomarker 02:35PM

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1 in the water samples within the Illinois River
2 watershed, can you specifically trace back that
3 biomarker to any particular defendants' contract
4 growers farm?

5 **A** Could you repeat that?

02:35PM

6 **Q** Sure. Actually I may just have the court
7 reporter repeat it.

8 (Whereupon, the court reporter read
9 back the previous question.)

10 **A** I think that would be possible to do within
11 the soil samples and edge of field samples, but once
12 it had got farther away, then it's going to be
13 potentially generalized contributions from a lot of
14 different places. So then once it's out in the
15 surface water or the groundwater, I don't see how it
16 could be traced back to a specific grower,
17 considering that there's a lot of different ones in
18 the watershed.

02:36PM

19 **Q** So the answer is, no, you could not do that?

20 **A** Except I think, again, in the soil sample or
21 an edge of field sample if it was associated with a
22 grower.

02:36PM

23 **Q** But the question was with regards to water.
24 So with regards to the water samples, you cannot
25 specifically identify which -- the poultry litter

02:37PM